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ABSTRACT

Courses and study programs in the United States designed for initial or continuing training for all levels of management and administration in higher education are analyzed and compared with similar studies in the Federal Republic of Germany. It is concluded that there would be little advantage in simply transferring methods and ideas from American programs to German ones, but that successful programs should be observed first hand. A training program for top-level higher education administrators is proposed. (Editor/MSE)

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If up to now the main objective of Phase 2 has been to report on the activities of the IMHE Programme or of its member institutions, the present issue deviates to some extent from this tradition inasmuch as its major theme is the management of higher educational institutions in the USA and the possibilities of transfering some of its methods to the European context - or more accurately - contexts.

Upon his return from a visit in the USA, Dr. H.J. Schüster, Kanzler of the Universität des Saarlandes, has analysed courses and study programmes designed for initial or recurrent training for all levels of management or administration in higher education. Comparing the organisation of postsecondary studies in the USA and the Federal Republic of Germany, Dr. Schüster concludes that there would be little interest in simply transfering methods but that there would be a lot to gain from observing at first hand training methods which have proved their value. In addition, he proposes a training scheme designed for top level managers in higher education.

Whereas this study only refers to the Federal Republic of Germany, it should be pointed out that educational structures in European countries are more or less comparable and the IMHE Secretariat would therefore welcome similar contributions from other countries for publication in Phase 2.

The NCHEMS (National Center for Higher Education Management Systems) is not unknown to our readers; indeed, the last issue of Phase 2 featured a comparison of costing methods developed by this organisation and by a group of French language universities carrying out research under the IMHE Programme. Costing is but one of the many tasks of NCHEMS and the Secretariat feels that it is timely to publish an article contributed by NCHEMS describing its activities, projects and publications.

The Secretariat is also pleased to present an innovation to Phase 2 readers: in this issue you will find book reviews on institutional research. We hope that this initiative will be appreciated by our readers.

In Phase 2 n° 11, Dr. Keith Legg, President of the outgoing Directing Group, presented the problems related to the renewal of the administrative arrangements between the IMHE Programme and OECD-CERI. The present Directing Group has considered on a number of occasions the possible options and in this issue you will find its final proposals along with a few other items of information concerning the Programme.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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TRAINING PROGRAMME FOR UNIVERSITY MANAGEMENT IN THE UNITED STATES[1]

by

H.J. Schüster

I. HIGHER EDUCATION AS A COURSE OF STUDIES AND SUBJECT OF ADVANCED TRAINING

1. Origins

The idea of scientific reflection upon the educational system and teaching process in the United States dates back to the late 19th Century. Its beginnings were marked by historical investigations describing the developments and transformations of the North American university system by the use of scientific historical methods. As the organizational sciences developed in the USA, increasing use was made of the institutional research approach.

During the '50's numerous colleges and universities introduced, usually with the assistance of foundation funds, what were called self-studies. Their quality and general usefulness varied but nonetheless prompted the universities to undertake a self-critical scrutiny of their own behaviour, and led to a growing number of experts, teachers as well as administrators, being given assignments involving quantitative survey methods and institutional research techniques.

A further fillip to scientific research in higher education was given by the movements for testing, counselling and guidance of student behaviour. Using psychometric aids, these contributed powerfully to the increasing thought being given to the aims and tasks of post secondary education. The new discipline derived therefrom elements for establishing a body of theory, improving its empirical methods and turning out a great many experts in the field.

Powerful boosts were also given by the wave of scientific policy after World War II. Numerous national and regional commissions endeavoured to frame recommendations for a new higher education policy. The need was felt to establish it on a firm empirical basis. Consequently these commissions were given

1. This article has been translated from German.

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a multiplicity of research assignments. The activities of the Carnegie Commission deserve special mention. The spectrum of its publication takes in well nigh all the topics and fields having a bearing on the concept of higher education as a branch of scholarship in the United States today.

Among State initiatives, those of California are outstanding, for under the pressure of its enormous upsurge in student numbers during the 1950's this State assumed a pioneer role in higher educational research. A lasting memorial of this trend is the University of California's Centre for the Study of Higher Education, established at Berkeley in 1956, which has stamped its image on this area of studies.

2. Training Curricula

The efforts described have resulted in a huge plethora of concepts and syllabuses. The official estimate of the number of professors specializing in higher education studies is 800. A list compiled and recorded by the American Council on Education currently includes 112 colleges and universities, spread over 45 States of the Union, offering courses of study in higher education; 67 of these institutions award doctorate degrees in the discipline.

In the Federal Republic Curtius was the first to report upon the American development of higher education study courses.[1] The present paper amplifies his findings. In particular his observation is confirmed that the managerial grades of colleges and universities are increasingly recruited among graduates of such courses. The alumni registers of the educational establishments visited by the author indicate a high percentage of university and college presidents, vice-presidents and senior administrators in various branches. The trend shows that the proportion of officials having degrees in higher education is on the up-grade.

The abundance of concepts and syllabuses corresponds to an ambiguity in the idea of what is to be understood nowadays by higher education as a field of study. There is a big consensus that this cannot be a scientific discipline in the usual sense of the term. The specific nature of the discipline is determined by the object of study (the system of higher education). Training centres are conceived as teaching and research establishments for post-secondary teachers, administrators, researchers and administrative staff in special research institutes, establishments of further education (adult, continuing, lifelong) and State and non-State bodies concerned with the coordination and finance of higher education. Accordingly, higher education as a field of study nowadays encompasses research in higher education, the development of applications-related models and techniques (services) and the training and advanced training of administrators in higher education and establishments for the advancement of higher education. In methods and content, programmes differ according to the disciplines capable of being used as scientific supports, and the type of persons the training and advanced training are designed to cater for. Two main types of formal curriculum (courses of study leading to master's degrees, doctorates or two-year certificates or diplomas) can be distinguished.

- Generalist Courses:

These are not aimed at conveying administrative knowledge and ability for specific professional careers but require of the student broadly conceived theoretical studies qualifying for any senior post in higher education.

- Courses with a Practical Orientation:

These qualify students for specific professional careers (e.g. as deans, financial administrators, vice-presidents, planning officers, provosts).

The types seldom occur in a pure state. Part of the criticism currently directed at this specialization in the United States is based on the confusion of functions inside the individual programmes. [2]

Another charge levelled against the discipline by critics is the gulf between promise and reality in many of the programmes. What is lacking is a systematic classification and demarcation of the subject matter which would give the discipline a clearcut profile. Its relationship to other empirical sciences is considered to be that of a borrower rather than an equal partner.

Its leading representatives are researchers and teachers having won their academic laurels in other disciplines and now applying the methods of these to higher education. The discipline is a very long way from having its own independent corpus of theory. Therefore the programmes described as most successful are those which address themselves to the current practical requirements of the higher education system.

3. Advanced Training Programmes

The vocationally oriented advanced training programmes are to be distinguished from courses conferring formal degrees. A handbook published by the Academy for Educational Development and the American Council on Education[3] lists for 1976 over 170 courses. These courses vary in kinds and length and are for the advanced training of higher education administrators at all levels, from members of the highest management bodies (trustees, regents, presidents) to specialists in particular areas of administration (e.g. student services, planning, budgeting, financial development and fund raising, careers planning and personal development). Emphasis is placed on pre-service and early in-service education. For

1. C.F. Curtius, "Studiengange für Hochschulverwalter - das Beispiel USA" in Die Deutsche Universitätszeitung, Vol. 10, 1974.

2. A clear separation of function is recommended by e.g. Paul L. Dressel and Lewis B. Mayhew in their book: Higher Education as a Field of Study, Jossey-Bass, San Francisco and London, 1974.

3. A Guide to Professional Development Opportunities for College and University Administrators - Seminars, Workshops, Conferences, and Internships, January-December 1975: American Council on Education, Publications Division, One Dupont Circle, Washington D.C. 20036.

the performance of such tasks, the American Council on Education founded in 1974 the Office of Leadership Development in Higher Education. In pursuit of its purpose of providing initial training and retraining both for school leavers and experienced administrators, the Office organizes, at various venues and in cooperation with other national or regional bodies, conferences, seminars and workshops. It also publishes striking research results and study material and fosters relations between colleges and universities, industrial and commercial organizations and State authorities in matters of training and professional development. Since its inception the Office of Leadership Development has now also taken over the Institute for College and University Administration (ICUA) established in 1955 and the Academic Administration Internship Programme (AAIP) introduced by the American Council of Education in 1964.

ICUA specializes in ab initio training for recently appointed top-level officials. It offers as a rule one-week seminars for four target groups:

- College or University Presidents
- Senior academic administrators (Academic Dean, Provost, Academic Vice-President, Dean of a College or Professional School, Dean of the Faculty, Dean of Instruction, or Dean of Studies)
- Business Officers (Financial Vice-President, Treasurer, Controller and other officials responsible for finance)
- Student Personnel Officers (Vice-President for Student Affairs, Provost, Dean of Studies and other officers responsible for student affairs).

The content of the syllabus for the one-week seminars embraces all practical questions in higher education. The emphasis given varies with the topicality of the matters treated. For instance, in the late 1960's, it was placed on constitutional matters (e.g. equal opportunity) and the resolution of conflicts; for the past three years it has shifted to methodological questions in systems management and collective bargaining problems. Currently the bias is towards problems arising from the restrictive economic and financial situation, and from unemployment. The programmes announced by ICUA for 1975 comprise the following topics:

- the changing postsecondary education scene
- academic goals, organization, and governance
- management by objectives
- curriculum innovation and planned change
- student concerns, goals, life styles, and services
- consumerism in higher education
- personnel policies, development, and evaluation
- non-retention, tenure, and collective bargaining
- affirmative action programs, and strategies
- legal concerns, and issues in higher education
- program planning and budgeting
- financing higher education with limited resources
- statewide commissions, planning, and coordination
- relations with the governing board, and the public
- skills, styles, and strategies of academic leadership

Since it was established in 1955, 2,800 senior officials from more than 1,000 colleges and universities, have attended ICUA seminars. In addition it has cooperated with other national or regional bodies in organizing seminars for another 1,030.

The AAIP caters for the professional training of a select number of young graduates for top-level posts.

The American Council on Education annually invites presidents and senior administrative staff from its member establishments to nominate suitable graduates, from among whom 40 are awarded ACE fellowships. The training includes a 10-12 month practical internship, usually in the office of a President of one of the member universities, three 6-day seminars, continuous counselling by an individually selected mentor, preparation of an "analytical paper on a significant aspect of academic administration" and study travel designed to broaden the trainee's acquaintance with establishments and organizations active in American higher education. Since the programme started in 1964, 393 ACE fellows have been appointed, almost half of whom now occupy posts of university presidents, vice-presidents or deans.

Besides these nation-wide activities of the American Council on Education, there are many regional or inter-regional professional training courses, some set up by the universities themselves, unaided, some in close cooperation with postgraduate courses at the various schools or departments of education. The Institute for Educational Management (IEM) of Harvard University has a scheme for training top-level university administrators that deserves special mention. The speciality of this kind of joint function of the Graduate School of Business and Management and Graduate School of Education is that it provides a common syllabus for different kinds of managerial posts. The course last 6 weeks and is held every summer; it covers the following items:

> Control and Planning Systems, Governance, Governmental Relations, Institutional Planning, Labor Relations, Management Information Systems, Fund-Raising, Organizational Behaviour, Personnel Policy and Administration.

The prospectus emphasizes that IEM working days are long and strenuous, starting with a common breakfast at 7 a.m. and lasting until 7 p.m., after which each individual is expected to prepare his work for the following day.

The teaching staff gathered together for each advanced training course are usually professors, experienced administrators, university researchers and representatives of State or non-State establishments. An increasing number are coopted from industry and commerce. The American Council on Education pursues a twofold aim by securing the services of such experts: to familiarize participants to the utmost possible extent, for use in higher education, well-tried economic management methods and techniques, and to

give participants first-hand information on what industry expects the universities to supply. For similar reasons increasing importance is being attached to exchanges of personnel between universities, private firms and State authorities.

The costs of advanced training are largely borne by the U.S. Federal Government and private foundations. For these exacting courses they are extremely high, and usually require a contribution by the participant or the university sending him. For the six-week course of the Institute for Educational Management of Harvard University a fee of $ 2,000 is charged. As a rule the universities sending trainees provide holiday pay and travel costs. The teaching methods used in the advanced training courses are adapted to the length and specific aims of the course. Longer courses offer opportunities for applications-relevant research work. Shorter ones provide, in addition to lectures that seldom take up more than a quarter of the time available for instruction, seminars, small discussion groups and case studies. In addition to highly structured courses, there are also ones laying particular stress on an informal atmosphere and leaving plenty of scope for specialized talks in small groups on current themes in university management.

The advanced courses described so far are aimed at professional development of top level management personnel. They involve instruction for people entrusted with the final responsibility of particular management processes and decisions, in the universities or higher educational system in general.

In addition there are numerous training courses for the professional training of middle-management personnel. As an exemple, we may take the Mid-management Education Certificate programme of the University of California, Berkeley.

This three-year course is intended for full-time officials of the University who, while not having university degrees, aspire to middle management posts. Successful completion of the course, requiring practical experience in new fields, gives candidates equal opportunities for filling middle managerial posts compared with graduates with bachelor's or master's degrees in business administration. The syllabus includes among other subjects business administration, economics, the computer sciences, mathematics and English, and is tailored to suit the special needs of individual trainees. The group size is limited to 10 participants. A fresh group starts every autumn. The trainees have very limited allowances of paid leave. The individual's contribution to costs amounts to $ 50 a year.

II. ARE THE MODELS TRANSPOSABLE?

1. Fundamental Differences

It is impossible to over-emphasize the danger of applying foreign models to the German system of higher education.[1] This is also true of the models presented here of training and advanced training in the United States. There are fundamental differences in the higher educational scene, differences which call for careful analysis before deriving individual principles or system elements for application to our own system.

a) Differences of Scale

A mere comparison of quantitative dimensions between the American system of higher education and that of the Federal Republic of Germany reveals basic differences. In the U.S.A. there are currently some 185 million inhabitants and about 2,600 establishments of higher education. The latter accommodate over 9 million full-time students and another 10 million+ part-timers. According to official estimates about 60 million Americans, or nearly one-third of the total population, currently attend courses, in one way or another, in post-secondary education.

In the Federal Republic the listed establishments engaged in the task of higher education number at present 162. They catered for about 800,000 students in 1975. The number of students not taking examinations is dwindling to vanishing point. Colleges and universities are still to a large extent unconcerned with professional further training for graduates.

b) Multiplicity of Forms in the United States, Unit Types in the Federal Republic of Germany

Such diversity is typical of higher education in the United States, Colleges and Universities differ not only considerably in size and sponsorship, some have less than 500 students, while others have over 50,000; more than half the establishments are privately sponsored. However, some three quarters of full-time students are registered in State establishments. There are even greater differences in terms of reference, aims and academic standards. About 300 of the 2,600 establishments award doctorate degrees. But it is a well-known fact that, measured by their internal image and their academic standard outside the United States, they are by no means as homogeneous as the "Hochschulen" of Federal Germany, with their justified degree standards, to which they are supposed to be equivalent. Only 46, or a quarter of the doctorate-awarding universities in the United States, offer definitely research-related doctoral courses. In the others research is of fairly minor importance. The remaining 550 establishments of university standard offer possibilities for post-graduate studies leading to a master's degree or other less than doctoral diplomas. More than one-third of the total are two-year institutions (junior colleges, community colleges). They give candidates a two-year course of study preparatory to some professional terminal programme, or enable them to spend the first 2 of the 4-5 years needed for a bachelor's degree in their home town. The mostly 4-year liberal arts colleges do not go any further than the bachelor's degree; they constitute a quarter of the United States' establishments of higher education.

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1. cf. especially C.F. Curtius, "Zur Verwendung ausländischer Hochschulmodelle - Möglichkeiten und Grenzen", Beiträge zur Hochschulverwaltung vol. Annex 3 to the Zeitschrift Wissenschaftsrecht, Wissenschaftsverwaltung, Wissenschaftsförderung (Festschrift für Friedrich Graf Stenbock-Fermor), Tübingen 1969, pp. 28 et seq.

The general criteria for the classification of establishments indicated are: length of course, general terms of reference and aims, inclusion of research. The typology must not be mistaken as indicating any uniformity of content. The degree of freedom left to the individual establishments in drawing up their curricula certainly varies, but even State institutions are allowed a broad measure of decision making powers, so that within the same type in the same State they may vary very considerably in kind and content. It corresponds to a fundamental feature of official policy for higher education in the United States that such tendency towards diversity of content should be encouraged rather than inhibited. This is looked on as a means of keeping alive competitive spirit in the courses offered and accelerating the adaptation of curricula to the needs of society. In the Federal Republic, in contrast, there has been noticeable in recent years an opposite trend towards uniformization of content. In this respect the pressure exerted by the numerus clausus is causing an increased uniformization and ossification of courses of study.

c) Differences of Financing

Whereas in the Federal Republic, the universities are almost entirely financed from the State budget, in the United States the proportion of non-State funding is of decisive importance, not merely in private establishments. Course fees still form an essential contribution. The Carnegie Commission recently recommended that the system of mixed financing should be retained. It urges that one third of expenditure in higher education should in future be covered by students' contributions. Hitherto about 20% of current expenditure in higher education in the United States has been made up of students' fees. In the competitive rivalry between State and private institutions to obtain backing from public funds, the private institutions won a notable partial success in 1971. In a legal hearing before the United States Supreme Court[1] the latter conceded for the first time, under stated conditions, the constitutional eligibility of private institutions (in this case church-maintained) for direct public financial assistance.

The dependence on sundry financial sponsors explains the greater importance of finance management in higher education in the United States.

d) More Management-Freedom in the United States

The application of the managerial concept in higher education operates more convincingly in the United States than in the Federal Republic. The reasons are mainly to be looked for in the deliberately cultivated multifariousness, and different system of finance. If an institution wants to survive in competition with its rivals - and the notion of survival figures prominently in the current literature on higher education - it must offer the most attractive curriculum at lowest possible prices. This commercial principle has certainly helped to enable the United States to afford an incomparable expansion of post-secondary education without the problem of the numerus clausus which stands in the way in Germany. But it has also caused notions like industrial management and research, policy formulation and analysis, educational planning, programming, planning and budgeting system (PPBS), management information system (MIS), resource allocation and fund raising, to become of vital importance in the country's higher education, whereas transposing them to our system hardly creates more than a general dilemma. In the Federal Republic the new Acts certainly ascribe to the universities an active role in planning and patterns of studies. Yet the elbow-room enjoyed by higher education in the United States, and the driving forces for independent curricula formation that are active there, really do not exist in Germany. On the contrary, the authorities' distribution of student places as determined by the numerus clausus leads to the universities being largely excluded from co-responsibility for a cost-conscious planning of types of course. The risk of planning and financial commitment is one-sidedly borne by the State. But even the State authorities reach their decisions less by a fundamental analysis of cost-effectiveness than in terms of the possibilities and constraints of fiscal policy. An example is the overall education plan decided by the Federal-Länder Commission on June 15th 1973 and ratified by the Heads of Federal and Land governments on 20th September 1973: its planned implementation has been not only postponed by financial developments but fundamentally called into question by the latest drastic cuts imposed. This development, dictated by financial considerations, minimizes the scope of decision making in higher education. This is essentially limited to spreading the necessary cuts over the organizational units, more or less prisoners of the current state of affairs.

e) Role of University Research in the United States

The development of courses and educational programmes in higher education administration in the United States is, as has been shown, the consequence of multiple research activities on the subject. The establishments themselves have contributed substantially to this research, spurred on by their own vital interests. All this activity is mirrored in the enormous literature. A select list for 1974, compiled for fellows of the Academic Administration Internship Programme, includes, besides a large number of directories, bibliographies and documentation under the head of information sources, 121 periodicals including numerous specialized publications on higher education administration and management.[2] In 1968 there appeared one of the first surveys of the literature on "Management Science in University Operations".[3] It takes in practically the whole currently effective structuring of this field of expertise.

1. Companion cases of Tilton v. Richardson and Lemon v. Kurtzman 28 june 1971.

2. A Reference Guide to Periodicals, Bibliographies, Directories, and Information Sources on Postsecondary Education, compiled by Thomas M. Stauffer, American Council on Education, One Dupont Circle, Washington, D.C. 20036.

3. Rath, G.J., "Management Science in University Operation", Management Science Vol. 14, No. 6 (February 1968), pp. B 373-384.

Investigations into the application of quantitative methods figure prominently. A survey published in October 1972[1] names the three important programmes for the United States:

1. The Ford Foundation Programme for Research in University Administration, located at the office of the Vice-President for Planning of the University of California, Berkeley. The Ford Project (2288 Fulton Street, Berkeley, California 94720) published in 1972 a report on "A Programme of Research in University Management" which gives information on the current status of research work and publications.

2. The NCHEMS (National Center for Higher Education Management Systems, programme at Boulder, Colorado.[2]

3. The CAMPUS (Computerized Analytical Methods in Planning University Systems) project developed by the Institute for the Quantitative Analysis of Social and Economic Policy of the Canadian University of Toronto.[3]

The results of this research and development work are attracting a lot of criticism in the United States at the present time. The chief objection to quantitative methods is directed against the neglect of qualitative aspects, especially in the evaluation of outputs. The limitations of conventional cost analysis are exposed in this respect. Aid is sought in the development of qualitative methods of evaluation. This is likely to be one of the main foci of future research.

In a general way it is to be noted that in the United States itself an overly uncritical application of models and techniques developed in existing higher education establishments has led to disillusionment and disenchantment.

The Director of the National Center for Higher Education Management System (NCHEMS), Ben Lawrence, points a warning finger at the limitations of the use of the cost analysis procedure developed by that Centre.[4] To avoid misleading results, he calls for strict observance of the instructions for its use, and greater efforts to produce comparable data inputs.

Two main conclusions may be drawn from the discussion on the efficiency of the models and techniques developed, and the demand for management data:

i) Detailed investigations are being initiated into the scope of managerial decision making, and the kind and extent of the information required.

ii) in the ongoing programmes of adaptive retraining for university administrators, the emphasis is being shifted to information on the applicability and efficiency of the models and techniques developed in the existing establishments.

In the Federal Republic only the first steps in higher education research are visible. The Universities themselves are conspicuously reluctant to investigate their own behaviour. The activities of HIS-GmbH and the Bavarian State Institute for University Research and Planning encounter more reticence than cooperative willingness in the universities. The reasons are many and varied and by no means attributable only to a defensive attitude towards overhasty and unreflecting projecting into the educational process by outside bodies of notions of planning and optimization.

2. A Long-Term Strategy Needed

Analysis of the differences between the higher education systems in the United States and Europe, especially the Federal Republic of Germany, makes it plain that there can be no question of a straightforward transposition of American models and programmes to the training and advanced training of university administrators. On the other hand, it does appear possible to make use of the basic ideas and experience in the planning of training programmes. This suggests the following considerations:

a) The nature and scope of training and advanced training programmes for university administrators depend upon the nature and scope of the decision-making capability allowed in higher education. An administration of universities and education that is allowed to have its own independent role in educational policy and the planning and framing of its own affairs has, quantitatively and qualitatively, different educational requirements from one largely reduced to implementation of other people's decisions. In the Federal Republic of Germany, the university Acts do give the universities such a role. In practice, however, the universities' total financial dependance and the State's unrestricted control of education have the effect that the theoretically available competences cannot be made use of.

Therefore systematic investigations should be made of whether and on what conditions the competences provided for universities and educational bodies can be more fully utilized. This demands more, and more realistic university and educational research. It must not be limited to the development of slick operational systems but must attack the disproportionately more difficult field of qualitative evaluation. This signifies also research into mutual relations between university and science on the one hand and industry and society on the other.

For exhaustive use of the decision-making capa-

1. Roger G. Schroeder, "A Survey of Management Science in University operations", in Management Science, Vol. 19, No. 8 (April 1973), pp. B. 895-906.

2. For the results of Research, cf. NCHEMS Director's Annual Report, obtainable from the Western Interstate Commission on Higher Education (WICHE), P.O. Drawer P, Boulder, Colorado 80 302.

3. For particulars of the versions of CAMPUS models and their application cf. George Mowbray and Jack Levine, "The Development and Implementation of CAMPUS: A Computer-Based Planning and Budgeting System for Universities and Colleges", Educational Technology, 1971.

4. "Cost analysis in Post-Secondary Education" in Higher Education Management, October 1975, Vol. 3, No. 3.

bility of university and general educational management there must be feedback from information on the economics sciences (the economics of education, finance, welfare). Information explaining the university and general educational system will also be forthcoming from the application of sociological methods (e.g. investigation of the behaviour of scientists and students as social groups) or, say, knowledge of conflict theory.

Comparative studies of foreign university systems are especially important. Only in this way can methods and models evolved in a different sort of context be useful to the domestic system. It should first be verified whether such comparative studies cannot be previously initiated at the level of the European Community, with at least participation by the European countries responsible for higher education.

b) Not until university and educational research is also carried out more intensively at a number of universities can the latter establish courses in university and educational management on the lines followed in the United States. This should be done, on the basis of experience in America, not as if it were a basic discipline having its own independent scientific profile but only by way of courses of training making use of the methodology of various other disciplines. Based on sundry fundamental courses up to doctorate standard or training courses qualifying for a special diploma, the new courses should ensure that an adequate number of basically trained young graduates is available for university and general educational administration. The attached attempt to sketch out the content of training schemes for educational administrators with reference to experience in the United States proceeds on the assumption that the educational manager will not only be given responsibility for fund raising and resource allocation but also act as a middleman between political authority and society on the one hand and university and science in general on the other.[1] A public programme of studies will be required to allow for participation by graduates of various basic educational backgrounds and to broaden knowledge of the fundamental discipline in relation to applications thereof (e.g. economists will qualify as educational economists), besides the acquisition of supplementary knowledge (e.g. the historian or mathematician will also be given a practical knowledge of educational legislation, the economics of education or educational sociology). The aim of training should be not so much qualification for a particular post as all-round competence within the university and general educational system. Guided by experience in the United States, the course of studies should primarily aim at a thorough understanding of the university and general educational system. The following presentation is not exclusive. Further additions may be made to the ancillary disciplines in the left-hand column. The subordination of subject-matter to ancillary disciplines indicates possible but not exclusive relations. Such interdependencies are to be encountered in most American study programmes, albeit with varying shades of emphasis.

Training courses of the kind outlined are a precondition for the carrying out in the longer term, by means of systematically trained managerial elements, of university and educational management in general, previously based on practical experience and inadequate management methods.

c) In the medium term the studies pursued at existing institutions and one or two universities (HIS, Bavarian State Institute for University Research and Planning) for ab initio and advanced retraining of university and general educational administrators are capable of being utilized. Examples and experience in the United States are highly relevant here. One step towards acclimatizing at any rate the retraining of management personnel for university and educational administration in Germany too, can be to arrange for a limited number of managerial personnel from the Federal Republic of Germany, from the appropriate ministries, interregional educational organizations and the universities, to attend advanced training courses in the United States. The advanced

1. cf. Schuster: "Modell einer Managementausbildung für Hochschuladministratoren in Wirtschaft und Wissenschaft, Vol. 4. 1974. pp. 14 et seq.

ANCILLARY DISCIPLINE	SUBJECT
History	Development of the notion of education; University history.
Law	Freedom of research and teaching; Law governing universities and research establishments; Systems comparisons.
Psychology	Conflict theory; group dynamics.
Sociology	Educationists and students as social groups; social function of universities and educational establishments.
Economics	Efficiency of higher education and of the educational establishments in society, and its evaluation; Management methods and techniques.

training programme, described in Section I, of the Institute for Educational Management of Harvard University specifically affords such a possibility.

However, the advanced training content of this programme can only to a limited extent be taken as a model to imitate, with due allowance for the special conditions and requirements of the university and educational system of the Federal Republic of Germany. Nevertheless, the principle of flexible feedback from current management problems is transposable. In applying it, the following questions arise in the context of current training requirements in the Federal Republic of Germany:

- How can universities and educational establishments ensure the quality of their services? Tackling this problem entails an analysis of their capability, with inclusion of an evaluation of their efficiency.

- Where does the boundary line run between operational rationalization and monitoring of economic efficiency in the field of science? To answer this question the university and general educational manager has to come to grips with econometrics and its efficiency.

- How can the lack of mobility of educational personnel be dealt with? To ensure a high standard of educational performance a balanced relation between the various age groups represented is of great importance. As regards imbalances that have occurred or are likely to occur, alternatives to the present staff structure should be tested.

- How can universities and other educational establishments be adjusted to requirements under the conditions of a stagnant economic trend? The necessity of proceeding from planned expansion to planned adjustment requires different strategies of planning and decision making.

On this side of the Atlantic there have only been made so far modest essays towards such a kind of advanced training. The need for developing and encouraging them is an urgent one, if the universities and the educational system in general are to perceive and secure the scope for decision making that ought to be allocated to them in the interest of their social function in society.

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